

ABSTRACT

A process chamber **35** for processing a substrate **30** and monitoring the process conducted on the substrate **30**, comprises a support **45**, a gas distributor, and an exhaust **85**. The process chamber **35** has a wall which may comprise a window or radiation transmitting portion **130** that allows light to be transmitted therethrough. Residue deposits onto the window **130** during processing of the substrate **30** may be reduced. In one version, the window **130** comprises a transparent plate **135** covered by an overlying mask **140** that has at least one aperture **145** extending through the mask **140** so that light can be transmitted through the aperture **145** and the transparent plate **135**.